

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
WB Holdings 1 LLC	)	File Nos. SAT-MOD-20001026-00148
	)	SAT-MOD-20001026-00149
	)	
Applications to Modify	)	
the KaStar System Authorization to	)	
Include C-Band Tracking, Telemetry,	)	
and Control	)	

**MEMORANDUM OPINION AND ORDER**

Adopted: May 03, 2002

Released: May 06, 2002

By the Chief, Satellite Division:

**I. INTRODUCTION**

1. By this Memorandum Opinion and Order (“Order”), we act on the applications of WB Holdings 1 LLC (“WB”)<sup>1</sup> to modify the frequencies its satellite system is authorized to use for tracking, telemetry, and control (“TT&C”) functions to include C-band frequencies.<sup>2</sup> Because the record lacks sufficient basis for waiver of the Commission’s rule that instructs domestic satellite licensees to conduct TT&C operations within their allocated service bands,<sup>3</sup> we deny WB’s applications.

<sup>1</sup> The modification applications were submitted by KaStar 73 Acquisition, LLC (“KaStar 73”) and KaStar 109.2 Acquisition, LLC (“KaStar 109.2”), which at the time of the filings were wholly owned by WB’s parent company, Wildblue Communications, Inc. Through a subsequent *pro forma* assignment, KaStar 73 was merged into KaStar 109.2, which then changed its name to WB Holdings 1 LLC. See Letter from Thomas S. Tycz, Chief, Satellite and Radiocommunication Division, Federal Communications Commission, to William M. Wiltshire, Counsel, WB Holdings (January 24, 2001) (File No. SAT-ASG-20010108-00004). Because both applications contain identical requests for use of C-band spectrum for limited TT&C operations, we address the applications together in this Order.

<sup>2</sup> *KaStar Satellite Communications Corp. Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, 13 FCC Rcd 1366 (Int’l Bur. 1997) (“WB Authorization Order”).

<sup>3</sup> See 47 C.F.R. § 25.202(g) (2001) (“Telemetry, tracking and telecommand functions for U.S. domestic satellites shall be conducted at either or both edges of the allocated band(s).”).

## II. BACKGROUND

2. In May 1997, as part of the first Ka-band processing round, the International Bureau (“Bureau”) authorized WB’s predecessor-in-interest, KaStar, to launch and operate a geostationary-satellite orbit (“GSO”) satellite system to provide fixed-satellite service (“FSS”) in the Ka-band.<sup>4</sup> WB intends to use this system to provide electronic messaging, mailboxes, database access, multimedia bridging, software distribution, and voice communications on a non-common carrier basis.<sup>5</sup> The proposed system consists of a single satellite at each of the 73° W.L. and the 109.2° W.L. orbital locations. The *WB Authorization Order* permits WB to operate one satellite at 73° W.L. in the 19.7-20.2 GHz and 29.5-30.0 GHz frequency bands, and one satellite at 109.2° W.L. in the 28.35-28.60 GHz and 29.25-29.5 GHz frequency bands.<sup>6</sup>

3. The *WB Authorization Order* did not include operating authority for WB’s proposed inter-satellite link (“ISL”) service, nor did it include downlink spectrum for WB’s second satellite at 109.2° W.L.<sup>7</sup> It also deferred imposing system implementation milestones until after WB received operating authority to launch and operate its system using specific ISL spectrum.<sup>8</sup> Finally, it did not grant WB’s request to conduct limited TT&C operations in the C-band, since such operations were not proposed within WB’s service bands.<sup>9</sup> Rather, WB was instructed to file a modification application that would address the impact of its operations on potentially affected parties if it wished to pursue TT&C operations in the C-band.<sup>10</sup>

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<sup>4</sup> See generally *WB Authorization Order*. In a series of name changes and *pro forma* transfers of control and assignments, Ka-Star became iSky, which in turn, became Wildblue Communications, Inc. Wildblue Communications, Inc. is the parent company of WB Holdings 1 LLC. See Letter from William M. Wiltshire, Counsel, WB Holdings, to Magalie Roman Salas, Secretary, Federal Communications Commission (November 3, 2000). See also Letter from William M. Wiltshire, Counsel, WB Holdings, to Magalie Roman Salas, Secretary, Federal Communications Commission (January 8, 2001). Request for *Pro Forma* Assignment of License of KaStar 73 Acquisition, LLC to WB 1 LLC (File No. SAT-ASG-20010108-00004).

<sup>5</sup> *WB Authorization Order*, 13 FCC Rcd 1366 at ¶ 3.

<sup>6</sup> *Id.* at ¶ 31.

<sup>7</sup> The Bureau recently granted KaStarCom’s application in the second Ka-band processing round to share the 73° W.L. and 109.2° W.L. orbital location with WB and to add spectrum to WB’s licensed first-round system. See *KaStarCom. World Satellite, LLC Application for Authority to Construct, Launch, and Operate a Ka-Band Satellite System in the Fixed-Satellite Service*, 16 FCC Rcd 20133 (Int’l Bur. 2001) (“*KaStarCom Authorization Order*”). KaStarCom and WB have jointly proposed to construct and own a single satellite at each of the 73° W.L. and 109.2° W.L. orbital locations with each licensee operating on 500 MHz of spectrum. See *id.* at ¶ 3.

<sup>8</sup> *WB Authorization Order*, 13 FCC Rcd 1366 at ¶ 24.

<sup>9</sup> *Id.* at ¶ 20.

<sup>10</sup> *Id.*

4. Subsequent Bureau action resolved the first two issues relating to WB's license. In January 2001, the Bureau authorized WB to conduct ISL operations on 1000 megahertz of spectrum at 69.0-70.0 GHz, subject to coordination among licensees and with non-ISL U.S. Government operations.<sup>11</sup> The Bureau also granted WB authority to conduct service downlink operations for its second satellite in the 18.3-18.8 GHz band in accordance with the band arrangement adopted in the *18 GHz Report and Order*<sup>12</sup> and footnotes US 334 and 255 to the Table of Frequency Allocations.<sup>13</sup> Because the *WB ISL Order* granted WB operating authority for specific ISL spectrum, the Bureau imposed system implementation milestones as a condition in WB's license.<sup>14</sup>

5. On October 26, 2000, WB filed applications to modify its license to add C-band spectrum for use in limited TT&C operations.<sup>15</sup> In its applications, WB states its intent to coordinate its use of the C-band for TT&C operations in conformity with the rules of the International Telecommunication Union. Specifically, WB states its intent to coordinate spectrum in the 3.700-3.7035 GHz and 4.1960-4.1995 GHz bands for downlink (telemetry) functions and in the 5.8565-5.8600 GHz and 6.4205-6.4240 GHz bands for uplink (command) functions. WB proposes that grant of its applications would serve the public interest by allowing WB to draw upon the more ubiquitous and established network of TT&C facilities in the C-band prior to the on-station testing of its Ka-band satellite systems, and in the event of an emergency where regaining contact with the satellite may be particularly problematic.

6. WB's applications were placed on public notice on December 5, 2000.<sup>16</sup> PanAmSat Corporation ("PanAmSat") and GE American Communications, Inc. ("GE

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<sup>11</sup> *WB Holdings 1 LLC, Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, 16 FCC Rcd 2513 at ¶ 10 (Int'l Bur. 2001) ("*WB ISL Order*"). If WB prefers to operate on a different 1000 megahertz within its preferred 69.0-71.0 GHz band, it may file a request for license modification. *Id.*

<sup>12</sup> *Id.* at ¶ 12. See also *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, 15 FCC Rcd 13430 (2000) ("*18 GHz Report and Order*"), *aff'd sub nom. Teledesic LLC v. FCC*, 275 F.3d 75 (D.C. Cir. December 28, 2001).

<sup>13</sup> *WB ISL Order*, 16 FCC Rcd at ¶¶ 12-13. See also 47 C.F.R. § 2.106 US 334 (requiring coordination of non-Government systems with U.S. Government GSO and non-geostationary orbit ("NGSO") FSS systems in the 17.8-20.2 GHz band) and US 255 (containing power flux-density limits to protect the Earth exploration-satellite service (passive) for the 18.6-18.8 GHz band).

<sup>14</sup> *Id.* at ¶¶ 15-16.

<sup>15</sup> In addition to requesting C-band spectrum to conduct limited TT&C operations, WB also designated the 500 MHz of spectrum from 18.3-18.8 GHz for use as service downlink spectrum. Because the Bureau has already granted WB authority to conduct service downlink operations in the 18.3-18.8 GHz band, this portion of WB's modification application is moot. See *supra* note 12 and accompanying text.

<sup>16</sup> *Public Notice, Satellite Branch Information Applications Accepted for Filing*, Report No. SAT-00062 (December 5, 2000).

Americom”) filed comments on WB’s proposed modifications.<sup>17</sup> PanAmSat and GE Americom do not oppose WB’s applications in principle, but both parties express concern that WB’s proposed use of C-band frequencies could interfere with the operations of their adjacent satellites. WB filed a response to these comments, in which it recognizes its obligation to coordinate its proposed C-band operations and expresses a willingness to accept a grant of its application conditioned upon successful coordination with adjacent satellite operators in the band.<sup>18</sup>

### III. DISCUSSION

7. We deny WB’s request for modification of its applications to add C-band spectrum for use in TT&C operations. This action conforms to the Commission’s rules governing use of spectrum for TT&C operations and is consistent with prior decisions concerning the applications of other similarly situated Ka-band licensees.<sup>19</sup>

8. Section 25.202(g) of the Commission’s rules states that TT&C operations should be provided within the frequency bands in which the particular satellite system will be providing service.<sup>20</sup> WB proposes to conduct its TT&C operations during transfer-orbit maneuvers and emergencies in C-band frequencies. Specifically, WB intends to conduct temporary TT&C operations in the 3.700-3.7035 GHz and 4.1960-4.1995 GHz for downlink (telemetry) functions and in the 5.8565-5.8600 GHz and 6.4205-6.4240 GHz bands for uplink (command) functions. All of these requested operations are at frequencies that are not part of WB’s service bands. Thus, the request is not consistent with Section 25.202(g).<sup>21</sup>

9. Although WB does not request a waiver of any Commission rule, on our own motion we will treat its applications as constituting a request for waiver of Section

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<sup>17</sup> Comments of PanAmSat Corporation (filed January 4, 2001) (“*PanAmSat Comments*”); Comments of GE American Communications, Inc. (filed January 4, 2001) (“*GE Americom Comments*”).

<sup>18</sup> Response of KaStar 73 Acquisition LLC (filed January 18, 2001) (“*WB Response*”).

<sup>19</sup> See, e.g., *KaStarCom Authorization Order*, 16 FCC Rcd at ¶¶ 23-25; *Lockheed Martin Corporation Application for Authority to Construct, Launch, and Operate a Ka-Band Satellite System in the Fixed-Satellite Service*, 16 FCC Rcd 14332 at ¶ 27 (2001); *DirectCom Networks, Inc. Application for Authority to Construct, Launch, and Operate a Ka-Band Satellite System in the Fixed-Satellite Service*, 16 FCC Rcd 14287 at ¶¶ 27-28 (2001). But cf. *Astrolink International LLC Application to Modify the Astrolink System Authorization*, 15 FCC Rcd 23738 at ¶¶ 8-10 (2000) (“*Astrolink Authorization Order*”) (granting request of Ka-band licensee to conduct TT&C operations in C-band).

<sup>20</sup> See *supra*, note 3.

<sup>21</sup> See *Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band*, 15 FCC Rcd 20488 at ¶ 129 (the rule “effectively limits FSS operators to operating TT&C links in the same frequency bands as their FSS operations”). The Commission has proposed, however, amending Section 25.202(g) to permit TT&C operations in the 3650-3700 MHz bands for FSS systems, upon a particularized showing of need. See *id.* at ¶130. Because WB has not requested the use of the 3650-3700 MHz bands for TT&C operations and because the Commission has not yet adopted the proposed amendment of Section 25.202(g), this proceeding is not relevant to WB’s applications.

25.202(g). Commission rules may be waived if there is “good cause” to do so.<sup>22</sup> Waiver is appropriate only if special circumstances warrant a deviation from the general rule, and such deviation would better serve the public interest than would strict adherence to the general rule.<sup>23</sup> Generally, the Commission may grant a waiver of its rules in a particular case only if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.<sup>24</sup>

10. Applying the standard set forth above, WB’s applications do not provide a sufficient basis for waiver of Section 25.202(g). WB does not allege any special circumstances that necessitate a waiver of the general rule. WB submits that grant of its modification request would serve the public interest by allowing WB to draw upon more ubiquitous and established networks of TT&C facilities in the C-band. This submission, by itself, presents insufficient evidence to conclude that a waiver would better serve the public interest than would strict adherence to the general rule. In particular, WB has failed to demonstrate that grant of a waiver would not undermine the policy objectives of the rule in question.

11. As the Commission recently affirmed, Section 25.202(g) serves the valid purpose of simplifying coordination among satellites at adjacent orbital locations and promoting efficient spectrum use.<sup>25</sup> There is no evidence that grant of a waiver would simplify coordination among adjacent satellite operators. The record does not show that WB has entered into any coordination arrangements except for preliminary discussions with an adjacent satellite operator at one of the two orbital locations for which WB seeks modification of its license. Although WB has apparently entered into preliminary coordination discussions with PanAmSat regarding WB’s proposed use of C-band frequencies for TT&C operations for its satellite at 73° W.L.,<sup>26</sup> the record does not show that WB has entered into any coordination discussions for this same orbital location with GE Americom or with any other adjacent satellite operator.<sup>27</sup> Furthermore, there is nothing in the record to show that any discussions have taken place to facilitate coordination of WB’s proposed use of C-band frequencies for TT&C operations at the 109.2° W.L. orbital location, or to facilitate coordination with adjacent non-U.S.

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<sup>22</sup> See Section 1.3 of the Commission’s rules, 47 C.F.R. § 1.3 (2001). See also *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969) (“*WAIT Radio*”); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990) (“*Northeast Cellular*”).

<sup>23</sup> *Northeast Cellular*, 897 F.2d at 1166.

<sup>24</sup> *WAIT Radio*, 418 F.2d at 1157.

<sup>25</sup> *Amendment of the Commission’s Rules With Regard to the 3650-3700 MHz Government Transfer Band*, 15 FCC Rcd 20488 at ¶¶ 129-130.

<sup>26</sup> See *PanAmSat Comments* at 3.

<sup>27</sup> GE Americom is licensed to operate the GE-6 C/Ku-band hybrid satellite at the 72° W.L. orbital location. See *GE Americom Comments* at 2.

operators at either orbital location.<sup>28</sup> WB merely states its intent to coordinate in the future with other adjacent operators. Thus, WB has not demonstrated that a grant of a waiver in this instance would further the coordination simplification objective of Section 25.202(g).

12. Conditioning the grant of WB's modification request on successful coordination with adjacent satellite operators would likewise not serve the underlying objective of simplifying coordination among adjacent operators. Under such a conditional grant, WB would still have to coordinate with more adjacent satellite operators than if WB conducted its TT&C operations in its authorized Ka- service bands. Although the Bureau granted the request of another Ka-band licensee, Astrolink International, LLC ("Astrolink"), to conduct TT&C operations outside of its service bands, and included a condition in its authorization requiring completion of international frequency coordination prior to launch, Astrolink had already conducted preliminary coordination discussions with adjacent satellite operators and had adjusted its TT&C frequency plan to address potential coordination difficulties.<sup>29</sup> Thus, the Bureau determined that Astrolink's proposed modification did not present substantial coordination concerns and was consistent with Section 25.202(g).<sup>30</sup> For the reasons stated above, there is insufficient support on the record for reaching the same determination regarding WB's applications.

13. Furthermore, the record does not show that a waiver would advance the second stated purpose of Section 25.202(g): spectrum efficiency. Section 25.202(g) provides an incentive for an operator to maximize the efficiency of a system's TT&C operations and to minimize the constraints placed on other satellite operations, since the greatest effect of any inefficiency in TT&C operations is likely to impact services offered by the operator's own satellite.<sup>31</sup> WB has requested a total of 14 megahertz of spectrum (seven megahertz for telemetry and seven megahertz for command functions) for TT&C operations in the C-band at each orbital location.<sup>32</sup> By contrast, another Ka-band licensee, Astrolink, requested only 2.7 megahertz of C-band spectrum for TT&C at each location.<sup>33</sup> In granting Astrolink a waiver of Section 25.202(g), the Bureau noted that

<sup>28</sup> Pursuant to the 1988 Trilateral Agreement between the United States, Canada, and Mexico, Mexico is assigned the use of C-band and Ku-band frequencies at 109.2° W.L. See Public Notice, Trilateral Arrangement Regarding Use of the Geostationary Orbit Reached by Canada, Mexico, and the United States (Sept. 2, 1988). WB did not address this issue in its applications.

<sup>29</sup> See *Astrolink Authorization Order*, 16 FCC Rcd at ¶ 9.

<sup>30</sup> *Id.*

<sup>31</sup> See *Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band*, 15 FCC Rcd 20488 at ¶ 129.

<sup>32</sup> WB has requested spectrum at 3.700-3.7035 GHz and 4.1960-4.1995 GHz for downlink (telemetry) functions and at 5.8565-5.8600 GHz and 6.4205-6.4240 GHz for uplink (command) functions.

<sup>33</sup> See *Astrolink Authorization Order*, 16 FCC Rcd at ¶ 4 (observing Astrolink's request of two telemetry signals, each with a bandwidth of 600 kilohertz, and one command frequency, with a 1.5 megahertz bandwidth).

Astrolink proposed to use three TT&C earth station sites worldwide, and that Astrolink's TT&C technical parameters appeared to be consistent with industry-wide practice for TT&C in the standard C- and Ku-bands.<sup>34</sup> WB has not provided any justification for the size of its spectrum request, nor has it made any demonstration that its proposed use of C-band frequencies would constitute an efficient use of spectrum resources. As a result, there is insufficient evidence on the record to show that a waiver would be consistent with the spectrum efficiency objective of Section 25.202(g).

14. In addition, WB should be aware that there are potential allocation and electromagnetic compatibility issues in the 5850-5925 MHz band and that the band may not be available to support its TT&C requirements in any case. The 5850-5925 MHz band is shared in the U.S. on a co-primary basis with Federal Government radiolocation systems. Unacceptable interference may be caused by such radiolocation systems operating in the frequency band, including high-powered land-based transportable and shipborne radar transmitters.<sup>35</sup> WB has not indicated that it would accept such interference from Government operations. Furthermore, fixed-satellite service in this band is limited to international intercontinental systems and subject to case-by-case electromagnetic compatibility ("EMC") analysis.<sup>36</sup> WB has neither provided such an EMC analysis in its applications nor set forth any justification why this provision should be waived.

#### IV. ORDERING CLAUSES

15. Accordingly, IT IS ORDERED that the Applications of WB Holdings 1 LLC, File No. SAT-MOD-20001026-00148 and File No. SAT-MOD-20001026-00149, ARE DENIED.

16. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegations of authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of public notice of this Order (*see* 47 C.F.R. § 1.4(b)(2)).

Federal Communications Commission

Thomas S. Tycz  
Chief, Satellite Division

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<sup>34</sup> See *id.* at ¶ 9.

<sup>35</sup> See NTIA Report-83-115, *Spectrum Resource Assessment in the 5650-5925 MHz Band*; and FCC 77-349 (rel. May 23, 1977) (which includes discussion of the sharing issues between the radiolocation and fixed-satellite service operations in the band 5850-5925 MHz).

<sup>36</sup> See 47 C.F.R. § 2.106 US245.